18BAABIOH Hearing UNITED STATES DISTRICT COURT 1 SOUTHERN DISTRICT OF NEW YORK 2 3 BIOSIG INSTRUMENTS, INC., 4 Plaintiff, 5 10 CV 7722 (AKH) v. 6 NAUTILUS, INC, 7 Defendant. 8 New York, N.Y. 9 August 11, 2011 2:45 p.m. 10 Before: 11 HON. ALVIN K. HELLERSTEIN, 12 District Judge 13 APPEARANCES 14 BARROWAY TOPAZ 15 Attorneys for Plaintiff BY: PAUL MILCETIC 16 HEIDELL PITTONI MURPHY & BACH 17 Attorneys for Plaintiff BY: JOHN BONE 18 KLARQUIST SPARKMAN, LLP 19 Attorneys for Defendant BY: JAMES GERINGER 20 NAUTILUS 21 Attorneys for Defendant BY: ARK PORTER 22 JOHNSON GALLAGHER MAGLIERY, LLC 23 Attorneys for Defendant BY: PETER J. GALLAGHER 24 25

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(Case called)

MR. MILCETIC: Paul Milcetic, of Barroway Topaz on behalf of Biosig, the plaintiff. And this is Mr. John Bone of Heidell Pittoni and he is also our local counsel behalf of the plaintiff.

THE COURT: Jenna Pellechia?

MR. MILCETIC: She went down to try to take care of a technical difficulty we're having.

THE COURT: When she comes back she's already been introduced.

MR. GERINGER: Good afternoon, your Honor.

Jim Geringer, for Nautilus. With me is Mark Porter of Nautilus and Peter Gallagher, our local counsel.

THE COURT: How do you do?

MR. PORTER: Good afternoon, your Honor.

MR. GALLAGHER: Good afternoon, your Honor.

I have been given two books. Can he who presented this to me tell me what they are.

MR. MILCETIC: Your Honor, Paul Milcetic, on behalf of Biosia.

I think you are referring to the slides at that time parties --

THE COURT: Well, one loose leaf is Claimed Construction Hearing, referring to this.

> MR. MILCETIC: Yes.

1	THE COURT: That's the Nautilus presentation.
2	MR. MILCETIC: Nautilus presentation.
3	THE COURT: And then the other one
4	MR. MILCETIC: Is the Biosig presentation.
5	THE COURT: I see.
6	MR. MILCETIC: And we've offered these paper copies
7	for your benefit in part because I am not sure that, unless I
8	on behalf of Biosig that we're going to be able to present
9	slides, so if you could just follow along with the paper.
10	THE COURT: Well, here is what I think. Since we have
11	a chart that gives me the language in the patent and the
12	different assertions of how it should be interpreted, how the
13	phrase should be interpreted let's go down phrase by phrase.
14	MR. MILCETIC: Sounds like a good idea, your Honor.
15	Would you like Biosig to start?
16	THE COURT: Well, the first phrase is a heart rate
17	monitor for use by the user in association with exercise
18	apparatus and/or exercise procedures comprising; and we'll stop
19	there. I don't know that we need any interpretation, do we?
20	MR. MILCETIC: As far as Biosig
21	THE COURT: Both agreed?
22	MR. GERINGER: Agreed, your Honor.
23	MR. MILCETIC: Agreed, your Honor.
24	THE COURT: And then it has an elongate member. So,
25	Mr. Milcetic, what is an elongate member?

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MR. MILCETIC: Well, that's as we discussed I think at the last hearing, it's just simply a member or a rod or a stressed out member that you would, in the case of this invention, hold when you are exercising so that it would measure your heart rate. The parties have both agreed --

THE COURT: So you need two hands on it. So how about a rod sufficiently or cylinder -- let's say cylinder -sufficiently wide so that the person whose heart rate will be monitored can fit both hands on the bar or on the cylinder; is that okay?

MR. MILCETIC: Your Honor, that's fine with Biosig as is what the parties agreed to here in this chart. Either one is fine with Biosiq.

THE COURT: Does elongate mean a long handle in any meaning?

How do you feel about that, Mr. Geringer?

MR. GERINGER: I agree, your Honor. I would only suggest, perhaps, a cylinder sufficiently long so that a person whose heart rate will be monitored can grip the handle on both sides.

THE COURT: Good. Off the record.

(Discussion held off the record)

THE COURT: On the record.

MR. MILCETIC: Your Honor, on behalf of Biosiq, the only thing I would mention on behalf of Biosig, your Honor, is Hearing

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the concept of a cylinder. I don't know that it necessarily
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     matters but we might just want to refer to it -- elongate
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     member is a very broad term. It just refers to any --
               MR. GERINGER: A cylinder or tube?
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               MR. MILCETIC: That's fine.
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               THE COURT: Well, we're not talking about two. We're
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      talking about one.
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              MR. GERINGER: Tube, T-U-B-E.
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               THE COURT: Cylindrical tube?
               MR. GERINGER:
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                              Sure.
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               THE COURT: Well, a cylinder can be a tube or I think
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      it's enough to call it a cylinder.
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               MR. GERINGER: I don't foresee a lot of dispute on
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     this point.
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               THE COURT: So we're past that. Then the next phrase
      electronic circuitry including a difference amplifier having a
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      first interterminal of a first polarity and a second
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      interterminal of a second polarity opposite the said first
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     polarity. And the parties suggest that a difference amplifier
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      is an electronic device that amplifies the difference between
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      two cylinders.
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               MR. MILCETIC: Your Honor, on behalf of Biosig --
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               THE COURT: Wait a minute.
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               (Pause)
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               THE COURT: I suggest the following:
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Electronic circuitry having a difference or differential amplifier having the capability of measuring the difference in signal between each of two places for inputs.

MR. GERINGER: Your Honor, may I speak for Nautilus? A diff amp doesn't just measure. It amplifies differences. It cancels what's the same. There can be a gain in a diff amp which we don't have to get into but measurement doesn't quite fit. It cancels what's the same and -- I am sorry. It cancels what's the same. It amplifies the differences.

MR. MILCETIC: Your Honor, this is Paul Milcetic on behalf of Biosiq.

I would agree with what he just said. In other words, you might recall from the last hearing that the object or part of this invention is that you want to minimize your muscle signal so that it doesn't affect the accuracy of your heart rate. But you want to amplify the heart signal so that you can measure it accurately. So what the diff amp does is it will, as Mr. Geringer just pointed out, if two signals are the same it'll simply subtract them.

THE COURT: How about this? Electronic circuitry to cancel similarities and measure differences between each of two inputs on the cylinder.

MR. GERINGER: How about, to cancel similarities and amplify differences?

THE COURT: Good.

MR. GERINGER: And we finish that sentence, your 1 Honor, with to cancel similarities and amplify differences. 2 3 THE COURT: Between each of two inputs on the 4 cylinder. 5 MR. MILCETIC: That's fine with Biosig. 6 MR. GERINGER: Agreed, your Honor. 7 THE COURT: And then the next set "elongate member". MR. GERINGER: Your Honor, may I make a small 8 9 suggestion? 10 THE COURT: Yes. 11 MR. GERINGER: On the cylinder might we say 12 cylindrical handle simply because it gives people a better 13 handle on what we're talking about? 14 THE COURT: It could be a handle or it could be 15 something else. It could be just a bar. 16 MR. GERINGER: You've got to grip it. 17 THE COURT: That doesn't mean it's a handle. MR. GERINGER: That's fine, your Honor. If it's clear 18 19 enough, we'll proceed. 20 THE COURT: Can you say a cylindric bar? 21 MR. MILCETIC: That's fine with Biosig. 22 MR. GERINGER: That's fine, your Honor. 23 THE COURT: Set elongate member comprising a first 24 half and a second half, so instead of elongate member called

cylindrical bar and the rest will be the same.

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Next, a first live electrode and a face common electrode mounted on said first half in spaced relationship with each other. Give me a moment. (Pause) THE COURT: The note I have from my law clerk is to ask if we're focusing only on disputed terms and only looking to plain meaning. And my purpose is to put this set of claims in plain meaning that a juror can understand. MR. GERINGER: Understood, your Honor. THE COURT: That's our objective here. MR. GERINGER: Agreed, your Honor. But from Nautilus' perspective by operation of law we believe that the claimed meaning we reached is informed by the full intrinsic record. THE COURT: Yes, of course. Of course. But I am not making any what I might say differential instructions here. What I want to do is construe these sets of claims so that each of you could have your full array of arguments. MR. GERINGER: Thank you, your Honor. THE COURT: And that's the purpose I am trying to serve. MR. GERINGER: Thank you, your Honor. I believe both parties also agree that we're looking for plain English here.

SOUTHERN DISTRICT REPORTERS, P.C.

MR. GERINGER:

THE COURT: That's the whole point.

Yes.

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MR. MILCETIC: This is Jenna Pellechia by the way. 1

MS. PELLECCHIA: Hello, your Honor.

I apologize for being late.

THE COURT: No problem. You were off on a mission.

MS. PELLECCHIA: Yes.

THE COURT: Mr. Milcetic, please elaborate on what we're talking about.

MR. MILCETIC: Okay. We're -- you are talking about the first live electrode and the first common electrode?

THE COURT: Yes.

MR. MILCETIC: So you may or may not recall from the tutorial, so the recitation is the first live electrode and the first common electrode mounted on said first half in spaced relationship with each other.

THE COURT: All right. So I understand what a live electrode is. It's a conductor through which electricity can flow. You have that suggestion. What is the common electrode.

MR. MILCETIC: The common electrodes are in this patent. They're both essentially connected to a common potential. So they are the inner electrodes in the patent. So when you are holding the bar, they're the electrodes on the inside.

THE COURT: Well, does it make difference if it's inside or outside as long as it's the same.

MR. MILCETIC: Well, they're both connected to one

another and they're connected to ground.

THE COURT: So it wouldn't make any difference where they're existing, I guess.

MR. MILCETIC: That's true. We are not trying to incorporate anything. I am just trying to put this in context. So both electrodes are materials that conduct electricity and they're metal or other conductive material that are both on either side of the cylindrical handle or tube that we just described. And I think the parties agree that on meaning of the term "electrode". They agree that the common electrodes are connected to each other and to a common voltage such as ground. We both agree that the outs, again, I'm just talking about the specific embodiment in the patent specification, the outside electrodes are the ones that are connected, that is the live electrodes are the ones connected to the differential amplifier.

So there's really no disagreement here --

THE COURT: Yeah, so why don't I accept the definition that both of you agree to, means the conductor through which electricity can flow. Each side of the handle has two electrodes, one live electrode and one common electrode. A live electrode is connected to an input of the difference amplifier. The common electrodes are connected to each other and to a common voltage such as ground.

Then I would take Biosig's definition of space

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relationship as meaning a relationship according to a measured distance between two points, so that the first live electrode and the first common electrode have a certain distance between them and the second live electrode and the second common electrode have a different distance between them.

You say "another". What does "another" mean? MR. MILCETIC: That was actually your phraseology. But I think both parties agree that the distance -- in fact in the patent specification the distance is the same.

THE COURT: So having the same distance between them.

MR. MILCETIC: Or having a distance between them I don't think the patent claims refers to the size of the distance one way or another. They both have a difference between them, a relationship between them.

THE COURT: Having the same or a different distance between them.

MR. MILCETIC: That's fine with Biosig.

MR. GERINGER: Your Honor, for Nautilus --

THE COURT: Yes.

MR. GERINGER: -- this is a very key term. I've put up on the screen our proposed --

THE COURT: I have it here. I don't need the screen.

MR. GERINGER: In our proposal we're quoting the file They distinguish the prior art in the file history by saying what that distance is. So, yes, a space relationship is

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the distance between the electrodes but they made very clear -and we would be happy to walk through detail, your Honor --

3 that they said the prior art had a particular space

relationship of the electrodes with each other and that in the

patent the electrodes had a different spaced relationship with

each other.

So the primary disagreement here is that Biosig seeks a very general definition of spaced relationship with each other. Nautilus seeks the specific relationship articulated in the file history to distinguish prior art.

THE COURT: So let me focus. It's improper to say the same or a different distance because in the file wrapper it's clear there has to be a different distance.

MR. GERINGER: Yes. We would say having a distance between them that is greater than the width of each electrode.

MR. MILCETIC: Your Honor, on behalf of Biosig --

THE COURT: One minute.

(Pause)

THE COURT: Go ahead.

MR. MILCETIC: There's nothing in this claim about the distance, the spaced relationship --

THE COURT: How should I interpret the file history? MR. MILCETIC: Well, your Honor, what the Federal Circuit says is that we can narrow an otherwise plain meaning if there's a clear disavowing of scope.

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THE COURT: You don't think there has been?
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              MR. MILCETIC: No.
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               THE COURT: Point me to the language. I have the
     declaration from it.
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              MR. MILCETIC: Well, in particular I think the key
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     part is if you take a look at page 7 of our -- if you take a
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      look the page 7 of our slides that we presented --
               THE COURT: I'd rather go to the declaration.
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              MR. MILCETIC: Okay. We're dealing with the
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     declaration. That is page 7 --
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               THE COURT: Rendering Lekhtman, L-E-K-H-T-M-A-N.
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              MR. MILCETIC: My understanding that is part of the
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     declaration what's on page 7.
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               THE COURT: I don't want to go to a secondary source.
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     Give me the primary source.
              MR. GERINGER: We can give cites to the joint
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      appendix. Do you have --
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              MR. MILCETIC: Sure.
              MR. GERINGER: For example, your Honor, and I've put
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      up on the screen our slides number 5 is an actual picture from
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      that declaration, paragraph 79 and 80.
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               THE COURT: Look, I --
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              MR. GERINGER: JA 241.
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              THE COURT: I am an old style trial lawyer.
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      deal with secondary sources. Primary source of the
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declaration, so paragraph 73 says during exercise detected the configuration the 200 patent will not eliminate the EMG which is -- EMG?

MR. GERINGER: Muscles.

THE COURT: Electrimycardial -- what's the "G" for?

MR. GERINGER: Probably from the "graph" that ends that word electromycardiograph.

THE COURT: Electromycardiograph or rather amplify it. That is why it will not work on exercise machines for anyone. Is that where you want me to go?

MR. GERINGER: That is one place, your Honor, but Joint Appendix 241.

THE COURT: Let me finish with this one.

MR. GERINGER: Yes. What paragraph are you reading, your Honor?

THE COURT: 73 and 74.

MR. GERINGER: Understood.

THE COURT: I can't use any of that. What's the next one?

MR. GERINGER: 79 and 80, your Honor, page 17, Joint Appendix 241. In particular 79 states it clearly.

THE COURT: What's the law about -- from the file wrapper to contradict the claim?

MR. GERINGER: Your Honor, I think the Dupont case, the Hockerson/Halverson case and the Johnson case all say that

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if you make a clear statement, it sticks. In each of --
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               THE COURT: Clear statement in a file wrapper --
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              MR. GERINGER: Yes.
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               THE COURT: -- representation to the patent examiner?
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              MR. GERINGER: To distinguish prior art --
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              THE COURT: It trumps what you have in a claim.
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              MR. GERINGER: Yes, your Honor.
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              THE COURT: Sounds right, Mr. Milcetic.
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              MR. MILCETIC: I think it's correct that if you
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     make --
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              THE COURT: So then take the language of 79 and apply
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      it.
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              MR. MILCETIC: However, your Honor, we disagree.
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               THE COURT: Let me understand first Mr. Geringer's
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      statement. And I think greater than the width is wrong. It
      should be greater or smaller than the width.
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              MR. MILCETIC: Biosig would be fine with that.
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              THE COURT: Mr. Geringer?
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              MR. GERINGER: I am looking at paragraph 69, your
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     Honor, of the declaration. Which would you --
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               THE COURT: Third line talks about narrower --
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              MR. GERINGER: Third line in the beginning in the
     middle of that paragraph where the fragment is in the 73
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     patents.
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               THE COURT: In the what?
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picture.

THE COURT: You mean triple zero?

MR. GERINGER: 331.

MR. MILCETIC: 331, picture 26.

THE COURT: Picture 26.

MR. MILCETIC: This is also information that went before the Patent Office and it says that this picture shows the geometry of a star track and Schwinn brand by Nautilus which is the defendant in this case and both sensors are balanced by EMG sensors as per claim number one. You'll see there that the example that we're giving the Patent Office of something that's covered by the claim is where the spaces is smaller than the width of electrodes.

THE COURT: As a general matter in the printed words are more effective than the picture and I believe that

Mr. Geringer states the teaching of the declaration that --

MR. MILCETIC: OK. Your Honor, the only other point that I would just want to get in the record is JA 246, paragraph 101 of this declaration. Paragraph 101 says, Nautilus and Unison used the teachings of the 753 Patent, that's this patent in suit in designing EMG balance detectors, so we've told the Patent Office that the Nautilus product is covered and showed them a picture of the Nautilus product where the space is less than the width of the electrodes. I find it surprising that the Patent Office would have allowed it on the idea that the space has to be wider than the width of the

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electrode.

MR. MILCETIC: Yes. Paragraph 101, page 246 says

Nautilus and Unison -- Nautilus is the defendant in this

case -- used the teachings of the 753 Patent in designing EMG

balance detectors for commercialized exercise equipment. So

we've told the Patent Office that what Nautilus uses is

covered. And in the picture that I just showed you we give an

example of a Nautilus device that has the space that's smaller

than the width of the electrodes. So why would the Patent

Office have granted this patent on the notion that the space

has to be greater than the width of electrodes?

THE COURT: You are reading paragraph 101 to me?

MR. GERINGER: May I speak to that, your Honor?
THE COURT: Yes.

MR. GERINGER: This page does not distinguish prior art. Paragraph 79 and several others distinguish the prior art. The Patent Office examiner relied upon those distinctions. We can't unring the bell.

THE COURT: I don't know what the Patent Officer examiner relied on except looking at the written document.

MR. GERINGER: And, your Honor --

THE COURT: The written document in the claim is not specific as to greater or smaller or the same. The declaration in paragraph 79 is specific, that needs to be greater. And I think I have to go along with that. So I rule in favor of

1 Mr. Geringer.

MR. GERINGER: Thank you, your Honor.

THE COURT: So it's going to say space relationship means relationship according to the measured distance between two points. So that first live electrode and the first common electrode have a certain distance between them. And the second line electrode and the second common electrode have a different distance between them that is greater than the width of each electrode.

MR. GERINGER: Your Honor, if I may clarify, just by only so that we know. And the pictures in our patent are also illustrated. I would suggest that we say, space relationship means a relationship according to a measured distance between two points so that the first live electrode and the first common electrode have a distance between them that is greater than the width of each electrode, and the second live electrode and the second common electrode have a distance between them that is greater than the width of each electrode. So we're merely changing — we're merely adding the phrase "that is greater than the width of each electrode" twice. Once for this pair, the left pair, once for the right pair.

THE COURT: I accept that.

MR. MILCETIC: Your Honor, I will make one last comment just for the record and I respect your ruling. The only other point that I would make is that this claim doesn't

even reference the width of the electrode. In other words, there may be a statement among many other statements in a declaration that distinguish the prior art from these patent claims but it doesn't even reference the specific language that you are construing. The specific language you're construing talks about a space between two pieces of metal on the bar. And what you're doing is incorporating from the declaration a statement about the width, the size of the electrodes which there isn't even a hook in the claim language for that. So our position is again —

THE COURT: So the space between electrodes is wider than the width of each electrode. So I guess under the teaching of Mr. Geringer I should take exactly that language.

MR. GERINGER: That is Nautilus' position. Not every statement that you make in the declaration is something that gets incorporated into the definition.

THE COURT: It's a risk.

MR. MILCETIC: It's risk. I agree, your Honor.

And --

THE COURT: No question. Mr. Lekhtman said it. He meant to say it, so that the examiner could rely on it. And I have to see what the examiner did.

One minute.

(Pause)

THE COURT: We should incorporate Paragraph 69.

MR. MILCETIC: Certainly, that would be fine with Biosig, your Honor.

THE COURT: The problem with this declaration is that it's inherently contradictory. A spaced relationship connotes a precise spatial measurement, otherwise it could be rendered and placed anywhere.

Paragraph 79 teaches that that space relationship is wider, is greater than the electrode is wide. Paragraph 69 says it could be adapted for particular uses and, I guess, with particular people. And so paragraph 69 and paragraph 79 and the claim are inherently contradictory. Now, how am I to deal with that on a definition?

MR. MILCETIC: From Biosig's perspective, your Honor, I think I'd just go back to the statements that we made earlier about the Federal Circuit's case law and that is that the presumption is that you start with what's in the claim and then can you change what's in the claim if there's a clearness about it, if it's clear, if the evidence in front of you is unambiguous.

THE COURT: I think it's hard to read but it's clear once you think through it it's clear.

69 says the size, shape, material and spacing of the activity electrodes cannot be standardized for all exercise analysts. Analyses must be made on a machine's specific basis to find the best relationship between the electrocardiograph

and the electromyogram ratio for each machine. That's different from spaced relationship and it's different from paragraph 79.

MR. MILCETIC: Which is why Biosig's position is that you can't incorporate that.

THE COURT: What is the purpose of the declaration? This is gibberish.

MR. GERINGER: Your Honor, may --

THE COURT: And you are falling right into a trap,

Mr. Milcetic, of an invalidity for ambiguity. You don't want
to do that. I don't want to necessarily define the patent in
such a way as to cause you to lose your patent.

MR. MILCETIC: I also don't mean to define it that way, obviously, your Honor. But if the declaration is ambiguous in certain respects that doesn't mean the patent is --

THE COURT: A lot of depends on the claim, depends on the materiality of the point. And the spaced relationship is important in this measurement as I think it is, then you have a problem. What you are telling me is that this patent can make it easy to measure the difference between the noise set off by the wave lengths of a muscular structure and the nerve system when exercising against the heartbeat.

MR. MILCETIC: Yes.

THE COURT: And that is the novelty of your patent.

And one of the ways of finding differentials is to define exactly how you place the different places to measure.

Paragraph 69 says it's got to be done by trial and error.

Paragraph 79 and the claim says it's a defined special relationship. Trial and error suggest you move it around till the find the optimum.

MR. MILCETIC: That's correct but I think that paragraph 79 was just pointing out one of many differences between the prior art and the accused product and it's something that is done to give the examiner context along with the other statements that we've made to the patent office including the picture of Nautilus' product which we say was covered by the patent.

THE COURT: So what you do is try tell the patent examiner to agree in advance that Nautilus is committing an infringement.

MR. MILCETIC: We're not asking you to try you now.

THE COURT: That's the nature of what you are asking and I am not going to do that either. My goal is not to define this patent in a way that precludes you from arguing the validity and in a way that precludes Mr. Geringer from denying infringement. And you want me to do both and I am not going to do it.

MR. MILCETIC: To be clear, your Honor, Biosig doesn't want you to do anything other than --

THE COURT: Define the patent.

MR. MILCETIC: Define the patent. And our view is that what's in the claim refers to a space between two electrodes. Irrespective of what's in the declaration, any ambiguities or contradictions that might be in the declaration, that space, if you look to a dictionary, if you were doing anything to define that space, what you would do is you might say, all right, well, that space is three inches or five inches —

THE COURT: I'm going to conclude this point and we're going to rewrite this so that we incorporate the sense of 69 and 79 in the sentence. Says, in my present thought is that we're going to define the first phrase. The first live electrode and the first common electrode mounted on said first half in spaced relationship with each other. And we are going on to say, the spaced relationship arises from trial and error placements of the two electrodes on the cylindrical bar. Once placed they're in a space relationship. That spaced relationship must be greater than the width of each electrode.

What I've done will confuse the jury and it may set up Mr. Milcetic for a ruling of invalidity. Fair warning. If you got a better thought, produce it. But that's where my mind is right now.

 $$\operatorname{MR.}$ MILCETIC: Produce it, meaning after this hearing or --

THE COURT: After this hearing.

MR. MILCETIC: All right, your Honor.

THE COURT: Give it to Mr. Geringer. Mr. Geringer can draft his criticism or counter suggestion and I'll take it in a joint submission and any others that come about but there will not be successive letter writings. One chance to do that.

MR. MILCETIC: That's fine, your Honor.

THE COURT: Then you have essentially what I am going to say.

(Pause)

MR. MILCETIC: Your Honor?

THE COURT: Yes.

MR. MILCETIC: May I just make one other point?

THE COURT: Yes.

MR. MILCETIC: In terms of this paragraph 79 that your Honor had expressed that you are potentially interested in reading, incorporating that statement into claims because it's clear, just read the declaration. So the declaration around that says claim one of the 753 Patent differentiates from the 200 Patent. So we are trying to distinguish from the prior art as your Honor correctly noted.

And then there's the paragraph 79 that you pointed to which you are interested in incorporating some of that language. But then the prior paragraph 78 right before it, right before it says, in the illustrated embodiment of 753

Patent the detector electrodes are relatively narrow and spaced apart and are very likely to be completely covered by the hand throughout an exercise routine, regardless of shifting hand position in the handle.

And then we say in paragraph 79, although the handle of the 200 Patent had two electrode sectors for each hand, the configuration differs for that of the 753 Patent. In the 200 Patent the space between is narrower. But the prior paragraph says we're talking about the patent specifications, not the claims. Then you look at the next paragraph 80.

THE COURT: You are talking about the patent?

MR. MILCETIC: Specification, the embodiment.

THE COURT: I have a read the claims in the context of the specification.

MR. MILCETIC: Well, it's true. But the question is how much of this extraneous document are we going to read into the claims?

THE COURT: But it's not an extraneous document. That's how you got the patent. You had a lawsuit here.

MR. MILCETIC: For a second time.

THE COURT: You withdrew the lawsuit, said we have -with the patent examiner and you had those proceedings. So
what do I make of this declaration. Should I forget about it?

MR. MILCETIC: No. There's a lot in this declaration

and then if you just look two paragraphs down from that --

THE COURT: That's what lawyers always do with documents. They can't take the whole document — they take it bit by bit and the other side and they show that it's ripped out of context. And that's what the argument has been. But this is a plain statement. I have to give it some effect to understand it cause as I say, I find that it's — that the relationship between the claims and the declaration and the prior art are confusing and it may affect the validity of the patent.

MR. MILCETIC: Why don't we give you the submission you asked for.

THE COURT: Yes.

MR. GERINGER: To be clear, your Honor, that submission you've asked for is that if Biosig can think of a way to synthesize paragraph 69 consistent with paragraph 79 --

THE COURT: I'll give it a wider scope if they can incorporate the teachings of the declaration and the claims in a way that's different, substantively different from the way I suggested, I'd like to see if and you'll have your chance to comment on it.

MR. GERINGER: Thank you, your Honor.

May I make that relevant, what I believe is relevant point on that, your Honor?

THE COURT: Yes.

MR. GERINGER: It's not just paragraph 79. Take

paragraph 42, for example, of the declaration. It said, we could distinguish it on site, paragraph 42 just this is JA 233, trial and error within certain bounds but what we submit will need to be consistent with this concept as well, your Honor, which is Mr. Lekhtman said, and his lawyers argue, that you could distinguish the spacing on site. It is not that complicated for them.

THE COURT: Okay. Thanks.

MR. GERINGER: Okay. My next term, your Honor, if I may make a ruling is another agreed term that the two live electrodes are electrically connected -- of a diff amp.

Your Honor, the next few terms are agreed. Would you like to walk through for them or shall we?

THE COURT: No. I think I had enough those.

MR. GERINGER: The next disputed term, your Honor, is a term about phase. If I may make a suggestion, phase is complex and not as material as substantially equal and substantially zero. Which term would your Honor like to turn to next?

THE COURT: Well, in sequence what is the next; thing.

MR. GERINGER: The next is the whereby clause, your

Honor, on page 4 of the document.

THE COURT: Whereby, the first electromyogram signal will be detected between said first live electrode and said first common electrode. And a second electromyogram signal of

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substantially equal magnitude and phase to said first electromyogram signal will be detected between said second live electrode and second common electrode.

So you are measuring the muscles and nerve system by each electrode.

MR. GERINGER: Correct, your Honor. This is a result that flows from the structure. If you have your electrodes balanced they will feed substantially equal muscle signals into the diff amp. And as we know equal things get cancelled in the diff amp. The electrocardiograph, the heart is different from each side. Differences get amplified in the diff amp. So this whereby clause just feeds substantially equal muscles signals in on each side so that you can get substantially --

THE COURT: I don't think it needs to be interpreted, Mr. Geringer.

MR. GERINGER: Understood, your Honor, I agree. could let this language speak for itself.

THE COURT: Mr. Milcetic.

MR. MILCETIC: Yes, it's fine, your Honor.

THE COURT: Okay.

MR. MILCETIC: I want to point out the term phase --

THE COURT: Well, it's an electronic term.

MR. MILCETIC: Okay. That's fine. We're willing to leave it alone. We can explain it. But your Honor's ruling on it is fine with us.

THE COURT: Isn't phase the completion of a cycle on a graph?

MR. MILCETIC: Yeah. I mean that's a good way of getting at it. From our perspective in the simple terms, phase refers to the timing of signals. So there is the amplitude, the magnitude. That's the size of the wave and then there is the phase which is how they correspond to the time which is on the "S" axis. So if you shift something out of phase then you essentially could get opposite signals. So it refers to the --yeah, to the --

THE COURT: You can flatten a wave or elongate the wave.

MR. MILCETIC: It's, actually, more moving it in time basically. We're thinking about moving it ahead in time. So if I have a -- yeah. I know this a secondary source but if you -- we used the dictionary for our definition. Turn to page 10 of our slide.

MR. BONE: Do you want to us put it on the screen?

THE COURT: The jury doesn't have to understand this.

MR. MILCETIC: It doesn't, your Honor.

MR. GERINGER: Please.

MR. MILCETIC: I was just going to say that the -THE COURT: I would say that you can think of an
electrical signal as a wave. As the wave moves forward it
rises and falls and then comes back to a mean and repeats

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itself and repeats itself and repeats itself. Each repetition is a phase. That is how I would interpret the word.

MR. MILCETIC: I think that would be fine with us. Ι mean I think the size of the wave that you think about is magnitude.

THE COURT: Right.

MR. MILCETIC: And the --

THE COURT: All right. So we can incorporate that definition in magnitude and phase.

The next is so that when said first electromyogram signal is applied to said first -- signal is applied to said second term, the first and second electromyogram signals will be subtracted from each other to produce a substantially zero electromyogram at the output said difference amplifier.

MR. GERINGER: Your Honor, if we're not going to construe the phrase before we're really in some ways these just run together.

THE COURT: I agree. Mr. Milcetic.

MR. MILCETIC: Fine with us.

THE COURT: Okay.

MR. GERINGER: Your Honor, just on the phase point, if I could just ask for clarification what we've decided, I have put up on the monitor Figure 3 of the patent which shows some of this cyclicalness that I think your Honor is referring to, right.

1 THE COURT: Right. MR. GERINGER: What will we use for phase, your Honor? 2 3 THE COURT: In this diagram put before me you can put an "A" and a "B" where the beginning of the phase is and end of 4 5 the phase is. So the beginning would be where the first rise 6 in the signal is shown and the end of the phase is the very 7 beginning of the second rise in the signal. MR. GERINGER: Agreed, your Honor, like waves of the 8 9 seashore. Excuse the metaphor if it doesn't help. So actually 10 it would be okay with Nautilus if one were to just annotate 11 that picture, your Honor. 12 THE COURT: All right. We'll do that. What's next? 13 MR. GERINGER: Means for measure -- it's means plus 14 function. Did I skip one? 15 THE COURT: I am at page 6. MR. GERINGER: Right. Your Honor, so we didn't 16 17 construe this "so that" clause. The next clause also is a and 18 whereby much like --19 THE COURT: Well, we have to define electromyogram. 20 MR. GERINGER: Correct. It's a heart signal, your 21 Honor. The heart's electrical signal. The parties agree on 22 that definition. 23 THE COURT: Okay.

MR. GERINGER: Would your Honor like me to move to the

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next?

THE COURT: Yes.

MR. GERINGER: It's also a "so that". So again it follows as a result, the parties haven't offered an agreement here to try to put it in plainer English.

THE COURT: I think we're finished, actually.

MR. GERINGER: Just the "means plus" function, your Honor. It's a complicated area in patent law.

THE COURT: Where is it?

MR. GERINGER: There are two means plus function elements. They come up exactly next and they start off -THE COURT: What page?

MR. GERINGER: Page 7 of docket 19-1, see "Means for Measuring Time Intervals Between Heart Pulses, Etc". and then on the next page we see "Means For Calculating The Heart Rate". So these are two means plus function clauses. If I may say a word, your Honor, in general about means plus function clauses? THE COURT: Yes.

MR. GERINGER: Section 112 paragraph 6 of the Patent Act is special. It says you can use means plus function language. If you do the Court will look to the specification and find the structure for that function. The parties here agree on the functions that are being recited here. They do have some disagreements on the structure that performs those functions. You need to go to the spec and decide what structure forms is linked to those functions.

THE COURT: I don't know that's necessary in the 1 definition. It's an argument under a different heading. And I 2 3 don't know that you have to define anything here any more. I think I'm finished. 4 5 MR. GERINGER: Markman is an intertive process, your Honor. If we're done for the day, we're done. 6 7 THE COURT: I think we're done for the day. MR. MILCETIC: Your Honor, if we are done, we're done. 8 9 I do agree with Mr. Geringer. 10 THE COURT: That's profound. 11 MR. MILCETIC: Those means plus function, we are 12 supposed to look at the specification and determine what a 13 corresponding structure is but if we're done, we're done. 14 THE COURT: What do you want me to do? 15 MR. MILCETIC: We could be done. MR. GERINGER: Frankly, your Honor --16 17 THE COURT: All right. We're done so what's next? 18 MR. GERINGER: You can declare what you want us to do. THE COURT: You are going to submit -- by the end of 19 20 next week I'll have a ruling out. Where do we go? What's 21 next? 22 MR. GERINGER: Your Honor, you said that you'll have a 23 ruling out by the end of next week? 24 THE COURT: I hope.

MR. GERINGER: So you are not waiting on a joint

letter from our argument? 1 THE COURT: I'll look at your letter. 2 3 MR. GERINGER: Okay. We will get the letter on by 4 what date, your Honor, a week from today? 5 THE COURT: A week from today. That means Mr. Milcetic has to give it to you by Monday and you both have 6 7 to submit by Wednesday. 8 MR. GERINGER: Two pages or less, your Honor, page 9 each? 10 THE COURT: Take what time you need but I don't see how it could be much longer than that. 11 12 MR. MILCETIC: Then was next, your Honor, is, frankly, 13 your Honor --14 THE COURT: Friday or Monday. 15 MR. MILCETIC: Thank you, your Honor. THE COURT: What's next? 16 17 MR. GERINGER: Your Honor, once we have your ruling, certainly, the parties will confer. It may be that Biosig 18 needs to change allegations. We'll have to look at your ruling 19 20 but besides as we always do --21 THE COURT: I don't believe there's going to be 22 changes in allegations the third time around. 23 MR. GERINGER: I don't make that decision.

THE COURT: I'm not going to assume Mr. Milcetic is

going to change his mine.

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1 MR. GERINGER: Okay, your Honor. Then the next step will be if that the parties as you've said will see what 2 3 arguments they can make based on your ruling and make --4 THE COURT: The basic question is you are going to 5 seek a motion for judgment on the pleadings where you are going 6 to go into discovery. 7 MR. GERINGER: I'll seek a motion on judgment on pleadings, your Honor, because none of the accused devices have 8 9 the -- because the accused devices electrode spacing is like 10 the prior art that is distinguished. THE COURT: You don't have to. 11 12 Mr. Milcetic, what would you like to do next? 13 MR. MILCETIC: Well, your Honor, we would --14 THE COURT: I think Mr. Geringer wants to do a motion, 15 might as well meet him and try to defeat him. MR. MILCETIC: Oh, absolutely. Obviously, we would 16 17 oppose. 18 THE COURT: So when you write to me you'll give me a briefing schedule. 19 20 MR. MILCETIC: Yeah, that's fine. 21 MR. GERINGER: Letter by Wednesday with briefs, 22 proposed briefing schedule. 23 THE COURT: Now, is there any need to preserve any 24 discovery?

MR. GERINGER: Your Honor, we are preserving

documents.

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THE COURT: How about witnesses? Are you making sure no one gets sick or dies?

MR. GERINGER: Unfortunately, your Honor, since this case began Nautilus has shrunk dramatically. We don't plan any further shrinkage.

THE COURT: Why are you looking at general counsel. He is not the first to know.

MR. GERINGER: So we don't anticipate any material changes in the future is always unknown.

THE COURT: That's what we do.

MR. MILCETIC: Your Honor, the only --

THE COURT: I think if there's a cause of action here we're going to know that by the end of December or earlier. Then we'll move ahead.

MR. MILCETIC: So, your Honor, does that mean no discovery until that time?

THE COURT: I think so. Don't you think so? Why waste money if there's no claim? If there's a claim then we'll go ahead.

MR. MILCETIC: We're find with that. I mean that makes -- that's a fine from our perspective to do it that way.

THE COURT: So the briefing should be completed within two months.

MR. GERINGER: We will be sure to propose a schedule

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that conforms to that, your Honor.

THE COURT: That means I'm going to get the motion by the end of October.

MR. GERINGER: Completed within two months. Perhaps, start in September and finish by mid October you have the briefing complete by mid October?

THE COURT: Yes. By the end of October. All right, then that means we'll be able to meet in November some time and plan the case to finish up by June.

All right. Thanks very much.

(Adjourned)